

**Notice of Allowability**

Application No.

10/765,149

Examiner

Leslie R. Deak

Applicant(s)

CAVALCANTI ET AL.

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 19 July 2006.
2. ☒ The allowed claim(s) is/are 10-16, 18, 21, 25, 29-31, 33, 37-40, 44-47 and 97.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

***Claims 51-94 are cancelled.***

#### ***Election/Restrictions***

2. This application is in condition for allowance except for the presence of claims 51-94 directed to an invention non-elected without traverse. Accordingly, claims 51-94 have been cancelled.

#### ***Reasons for Allowance***

3. Claims 10-16, 18, 21, 25, 28-31, 33, 37-40, 44-46, 97, and 47/10, 18, 21, 25, 28-31, 33, 37-40, 44-46 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose or suggest the limitations claimed by applicant. Applicant's specific recitation that the memory of control and calculation unit is "programmed to" perform various functions renders the memory a physical part of the calculation unit that is encoded to perform the claimed functions. The claim language positively claims the actions of the control and calculation unit such that in order to render the instantly claimed device unpatentable, the prior art must perform the functions claimed by applicant. The prior art fails to set forth a device that comprises the

structural elements claimed by applicant in combination with the functions performed by the controller as set forth below.

With regard to claims 10-16 and 47/10-16, Kramer discloses a second pump 19 in communication with the dialysis fluid, but does not disclose that the mathematical model of the vascular access comprises a parameter relating to the flow of fluid through the second pump.

With regard to claims 18 and 47/18, Kramer does not disclose the use of arterial pressure to calculate fistula flow.

With regard to claims 21, 25, 28-31, and 47/21, 25, 28-31, Kramer does not disclose the use of a pressure sensor anywhere in the apparatus or mathematical model to measure a parameter of the fluid flowing through the circuit. Kramer also does not disclose the measurement or manipulation of a parameter relating to blood pressure.

With regard to claims 33, 44, 97, and 47/33, 44 Kramer does not disclose the claimed equation nor any measurement or manipulation of pressure in the patient or the extracorporeal circuit.

With regard to claims 37-40 and 47/37-40, Kramer fails to disclose a 3<sup>rd</sup> mathematical model or equation as recited by applicant.

With regard to claims 45, 46, and 47/45, 46, Kramer fails to disclose that the controller maintains the pumping rate at a steady state or changes the flow rate of second pump 19.

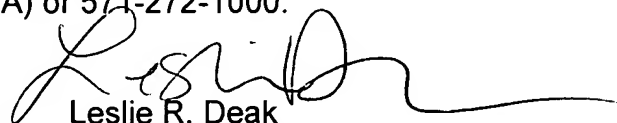
Art Unit: 3761

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie R. Deak whose telephone number is 571-272-4943. The examiner can normally be reached on M-F 7:30-5:00, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TATYANA ZALUKAEVA  
SUPERVISORY PRIMARY EXAMINER



Leslie R. Deak  
Patent Examiner  
Art Unit 3761  
5 September 2006